



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES



2014 Drought Response Report

State Operations Center

Situation Brief – May 2, 2014



Situational Summary

On January 17, 2014 Governor Edmund G. Brown Jr. proclaimed a State of Emergency and directed state officials to take all necessary actions to prepare for drought conditions. The State Operation Center (SOC) is activated to implement objectives in support of the Governor's priorities. The lack of winter rain and snowfall has resulted in extremely dry conditions in many parts of the State. Reservoir levels are down significantly from where they should be on average for this time of year. If conditions continue, severe impacts to municipal water supplies, agriculture (plants and livestock) and firefighting capabilities are likely in store for the State over the next few months. Negative economic impacts will also result.

On April 25, 2014 Governor Brown released an Executive Order enabling several urgent actions to be taken as the drought persists into the state's traditional dry season.

Near-term Outlook for Precipitation: Warmer weather will occur across the state this week with no expected precipitation.

** It is possible that last week's storms will be the last storms of the state's traditional rainy season. As this rainy season comes to an end, it is highly unlikely that precipitation totals will increase significantly over the coming months. This winter's below average rain and snowfall worsens conditions in this third straight dry year.**

Situational Summary (cont'd)

Information as of 4/28/14

- The Taskforce continues to meet regularly to take actions that conserve water and coordinate state response to the drought.
- The most recent snowpack survey, conducted on April 1, recorded California snowpack at 32% of normal. A more recent update using automated devices shows snowpack at 21% of normal as of April 27.
- DWR has announced that water essential for health and safety will be delivered through the state water project in spite of the zero allocation policy. Deliveries will be boosted if storms produce enough rain and snow to increase reservoir storage and the snow pack.
- Cal OES continues to gather drought-related costs from state agencies and local governments.

Drought Impacts

1. **Drinking Water** (Information as of 4/28/14)

- **Vulnerable Water Systems:** The California Department of Public Health is providing technical and funding assistance to help several communities facing near-term drinking water shortages and is monitoring water systems across the state to determine where else it can provide support. Updated information can be found at the CDPH Drinking Water Program website.

2. **Fires** (Information as of 4/28/14)

- 1,108 fires have been reported across the state since January 1, burning 2,541 acres. This year's fire activity is well above the year-to-date average of 500 wildfires, burning 1,325 acres. 68 new wildfires were reported over the past week, most of which were kept small due to additional firefighters, fire engines and firefighting aircraft added during this dry winter. There is a 120% over an average year for the number of fires and just under 100% increase in the number of acres burned in an average year.

Drought Impacts (continued)

3. **Economic Impacts** (Information as of 4/28/14)

- By law, SBA makes Economic Injury Disaster Loans (EIDLs) available when the U. S. Secretary of Agriculture designates an agricultural disaster. Agriculture Secretary Tom Vilsack declared this disaster on February 26, 2014.
- No information is available yet regarding impact on labor due to drought. Employment Development Department (EDD) will be sending weekly updates.
- CDFA has partnered with the University of California to have UC Davis provide a socioeconomic analysis of drought impacts on agricultural communities through modeling scenarios (SWAP model, IMPLAN) and the use of satellite data. This study will allow the state to refine its response to potential drought impacts in the Central Valley. This study will be completed by June 30, 2014.

4. **Agricultural Impacts** (Information as of 4/28/14)

- A third public stakeholder meeting on CDFA's Water Efficiency and Enhancement Program will take place on Thursday, May 8, 2014 in Tulare, CA at the Southern California Edison Energy Education Center.

5. **Community Impacts** (Information as of 4/28/14)

- CDFA's drought webpage has been updated to include additional community resources with links and descriptions for the following programs from USDA's Farm Service Agency: Livestock Indemnity Program (LIP), Livestock Forage Program (LFP), Emergency Assistance for Livestock, Honey Bees, and Farm-raised Fish (ELAP), and Tree Assistance Program (TAP). These programs will be open for sign-up in mid-April 2014 (exact date unknown).
- Per CDFA Secretary Ross held an additional agricultural stakeholder call on Wednesday, April 9, 2014 with the Governor's Office to announce the release of the Drought Operations Plan.

Federal Resources/Actions

Information as of 4/28/14

- **President signs the Drought Information Act:** Congress passed and the President signed a federal bill to reauthorize the National Integrated Drought Information System Reauthorization Act (NIDIS). This act enables a federal early warning system for droughts by providing information, forecasts and assessments to vulnerable states. NIDIS was championed by the Western Governors Association, based on the drought vulnerability of western states.
- **Water Allocations Increase:** The capture of storm runoff from February and March rains has enabled the U.S. Bureau of Reclamation and the Department of Water Resources to update their water allocations:
 - Reclamation will increase its water allocation to Upper Sacramento Settlement Contractors from 40% to 75%. Several of these contractors have agreed to take their allocations later in the season than normal, which will benefit migrating fish. Some water from this increased allocation may be used south of the Delta thanks to water transfers between willing water buyers and sellers.
 - DWR has increased its allocation for South of Delta Service Contractors from 0% to 5%. This increase, while modest, will enable approximately 200,000 acre feet of water to state water project users.
- **Salinity barriers not currently needed:** DWR and partner agencies have determined that rock barriers to prevent saltwater intrusion into the Delta are not needed at this time. Salinity barriers remain an option for later in the year if needed.

Federal Resources/Actions (continued)

Information as of 4/21/14

- **Increased fish monitoring:** The California Department of Fish and Wildlife and federal fish and wildlife agencies announced they will immediately move to expand monitoring of the drought's evolving impacts on protected fish, including those migrating through the Sacramento River.
- **US Navy demonstrates leadership on water conservation:** Navy Region Southwest, the Navy division that manages California Navy bases, is taking new steps to conserve water at its bases, including aiming to reduce water usage another 10% through December. This recent push continues Navy Region Southwest's successful water conservation efforts, which has included reducing water use by more than 26% since 2007.

State Resources/Actions

Information as of 3/10/14

Governor Brown signed emergency legislation that provides funding for shovel-ready water projects and emergency assistance to communities hurt by the drought. The proposal also streamlines state rules to enable more water recycling, strong enforcement of water rights and housing assistance to migrant workers. Funding in the bill includes:

- **\$549 million** for infrastructure grants to increase storm water capture and use of recycled water, improve management of groundwater storage, and strengthen water conservation.
- **\$40 million** from the proceeds of the state's cap-and-trade program to help local water agencies improve their water and energy efficiency, help farmers upgrade irrigation and water pumping systems to reduce water and energy use, and to enable retrofits in commercial and residential buildings that improve water and energy efficiency.
- **\$25 million** for emergency food assistance in areas hard-hit by the drought.
- **\$21 million** for housing-related assistance to drought victims.
- **\$15 million** to help communities that face drinking water shortages access alternative water supplies.
- **\$14 million** to improve groundwater management across the state, including help to disadvantaged communities with groundwater contamination exacerbated by the drought.

State Resources

Information as of 4/28/14

- **Statewide fire staffing continues to expand:** Last week, CALFIRE added another 42 fire engines across the state, and will add 65 more engines this week. CALFIRE has increased firefighter staffing this spring far earlier than normal amidst dry conditions and abnormally high wildfire activity. In the last week alone, 82 new fires were reported.
- **Housing assistance for drought victims advances:** The California Department of Housing & Community Development is currently seeking public input on its plan to spend \$21 million in grant funding for rental assistance to individuals impacted by the drought. This public comment will inform the way these funds are spent later this spring and summer.
- **Drought Relief Food Assistance:** On Thursday, the California Department of Social Services announced that food banks in 24 drought-impacted counties will soon receive shipments of the first \$5.1 million in food assistance authorized by the state's emergency drought legislation.
- **Upcoming workshop on recent water operations:** The State Water Resources Control Board will hold a workshop on Tuesday, May 6 to discuss recent actions the Water Board has taken to provide flexibility to DWR and the Bureau of Reclamation in their water operations. These changes have been approved through modifications to Temporary Urgency Change Petitions, and is described in greater detail on drought.ca.gov.
- **Groundwater report to be released this week:** The Department of Water Resources will release a report on Wednesday (April 30) that charts changing groundwater levels, land subsidence, and agricultural land fallowing as the drought persists.



State Resources

Information as of 5/2/14

- **Water Board launches web tool:** The State Water Board has developed a webpage that helps water users monitor river flow in watersheds where they live and farm. This information, which will be updated weekly, helps water users anticipate any curtailment of their water use that may become necessary due to lack of river flow.
- **Upcoming workshop on recent water operations:** The State Water Resources Control Board will hold a workshop on Tuesday, May 6 to discuss recent actions the Water Board has taken to provide flexibility to DWR and the Bureau of Reclamation in their water operations. These changes have been approved through modifications to Temporary Urgency Change Petitions, and is described in greater detail on drought.ca.gov.
- **Cost Data:** Cal OES continues to gather drought-related costs from state agencies and local governments, which is reported weekly to the Drought Taskforce.
- **Governor's Drought Task Force:** The Taskforce continues to meet daily to take actions that conserve water and coordinate state response to the drought

State Advance/Strategic Planning

Information Current as of 4/18/14

State actions looking forward for **30, 60,120** days ahead will focus on:

- State and federal funding and legislative actions.
- Agricultural support, including USDA programs and other assistance to farmers.
- Actions to address water system operations and water supply, including curtailments, transfers, delta emergency actions.
- Actions to assess and assist with emergency needs related to drinking water.
- Assessment of hydropower generation, and any direct or indirect impacts to the electricity supply.
- Actions to address long-term habitat preservation.
- Community support needs and delivery of needed services such as food, rental/housing assistance, utilities assistance and support to non-profit organizations.
- Public health and safety issues such as increased fire threat, security threats, and activation of contingency plans.
- Actions to anticipate and address air quality impacts from continuing drought.

Current Missions

Information Current as of 5/1/14

Current Missions:

- There are no current missions open at this time.

County Drought Task Force Meetings

Information as of 5/1/14

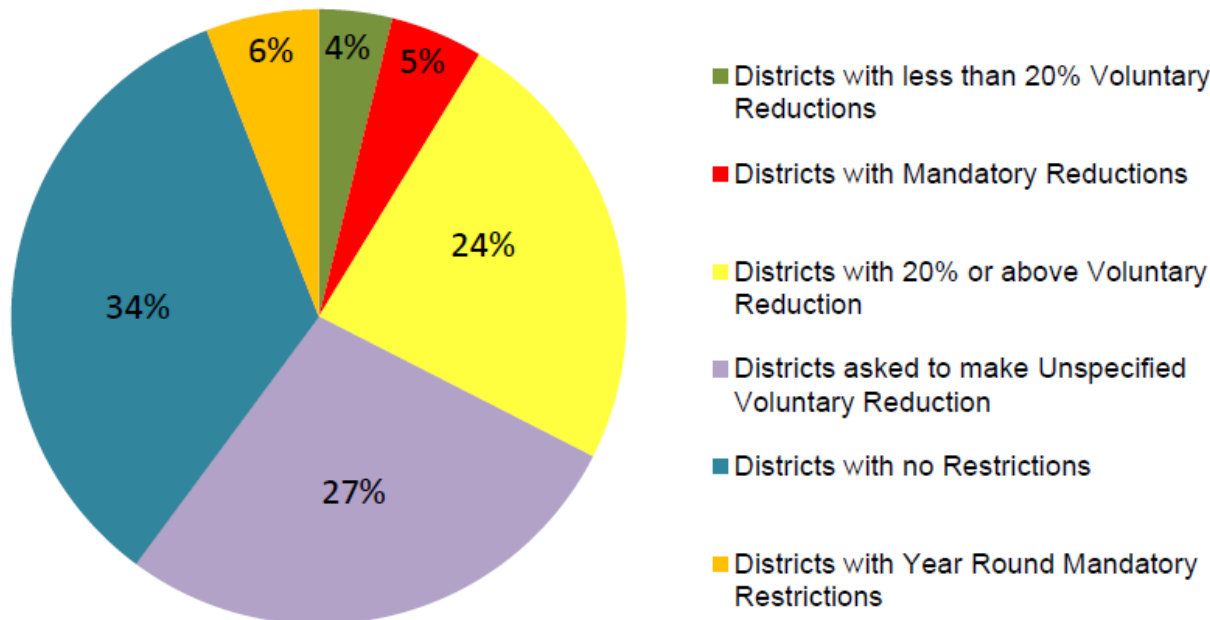
County Drought Task Force Upcoming Meetings		
Inland Region		
County	Previous Meetings	Upcoming Meetings
Butte	2/18/2014	5/19/2014
Kern	4/10/2014	
Madera	4/29/2014	5/29/2014
Merced	4/17/2014	5/8/2014
Modoc	2/12/2014	
Nevada	4/15/2014	5/29/2014
Placer	3/12/2014	
Plumas	4/14/2014	
Sacramento	4/11/2014	5/2/2014
San Joaquin		5/21/2014
Siskiyou	4/22/2014	
Stanislaus	3/19/2014	5/8/2014
Sutter	4/10/2014	5/8/2014
Tehama	2/18/2014	5/19/2014
Tulare	4/14/2014	
Tuolumne	3/28/2014	5/1/2014
Yolo		5/1/2014
Coastal Region		
Mendocino	4/16/2014	5/7/2014
Santa Clara	2/27/2014	
Southern Region		
San Luis Obispo	3/19/2014	5/15/2014
Santa Barbara	3/12/2014	5/28/2014
Orange	4/1/2014	

County Updates

Local Government (as of 4/28/14)

- **Water Agency Conservation Efforts:** The Association of California Water Agencies has identified several hundred local water agencies that have implemented water conservation actions. These water agencies are responding to the drought by implementing conservation programs, which include voluntary calls for reduced water usage and mandatory restrictions where water shortages are worst.

District Actions Taken



County Updates continued

Cal OES Regions (as of 4/29/14)

Regions continue to monitor the drought situation and analysis impacts to their respective Operational Areas. Some current issues identified include:

Insufficient forage for livestock grazing

Hay stocks are dwindling rapidly because of the need to supplant dry land pastures

Lack of water for livestock

Water wells failing by summer, adding costs to re-drill and replace pumps

Rising costs to transport potable water to ranches

County Updates

Coastal Region Updates

Mendocino (as of 4/29/14)

- On Monday, April 21st, the Redwood Valley County Water District (RVCWD) turned off water to Agriculture. They have begun work on the intertie and are almost ready to submit the encroachment permit with Department of Transportation. They would like to be able to get some AG water to customers because without this water the County is looking at \$16 million of fruit that turns into \$60 Million worth of wine that would not come into the County/Communities/Business. RVCWD is on track to make it through the end of the year with the 355 AF for domestic only, at the current consumption rate.

Inland Region Updates

Sutter (as of 4/29/14)

- There is a need for State Mutual Aid with the primary concern being insufficient forage for livestock grazing within the Sutter Buttes. Ranchers hay stocks are dwindling rapidly because of the need to supplant their dry land pastures. Secondary concern is lack of water for livestock. Water wells will definitely fail by summer, adding costs to re-drill and replace pumps. Also, costs to transport potable water to ranches will be costly.

Southern Region Updates

- As of 4/29/14 nothing new to report

Weather Synopsis

Information as of 4/30/14

6 to 10 day forecast:

- Below normal temperatures favored across much of CA. Above normal precipitation favored across the northern 2/3 of the state with below normal precipitation favored extreme southern CA.
- Note: State-wide normal precipitation this time of year is less than ½ inch for this 5 day period.

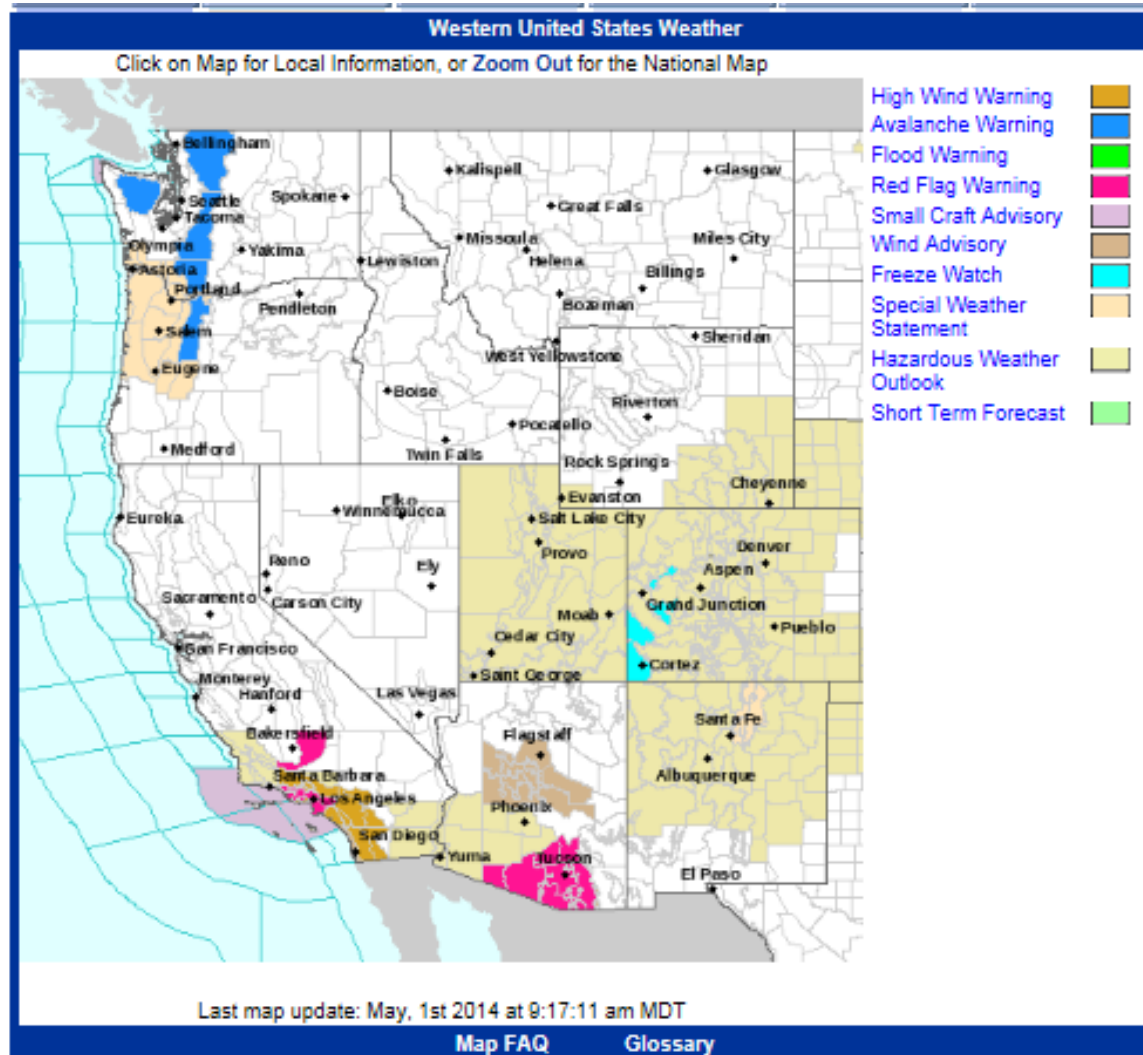
No precipitation expected until late Saturday night.

Key Points for May 1-7, 2014

- Thursday: Strong gusty offshore winds, extreme warm temperatures, and hazardous fire weather conditions expected. Additional impacts include possible downed trees and power lines
- Saturday-Sunday: Cooler weather with a chance of showers northern CA. No significant hazards expected
- Monday-Wednesday: No significant hazards expected

State Weather Map

Information as of 5/1/14



<http://www.wrh.noaa.gov/>



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California OES Impact Threat Matrix

May 01, 2014 – May 07, 2014

DAY/THREAT	THU	FRI	SAT	SUN	MON	TUE	WED
Fire Weather							
Winds							
Extreme Cold							
Snow							
Heavy Rain/ Flash Flooding							
River Flooding							
Severe Weather							
Heat							
Tropical							

	High Threat
	Moderate Threat
	Slight Threat
	No Discernible Threat

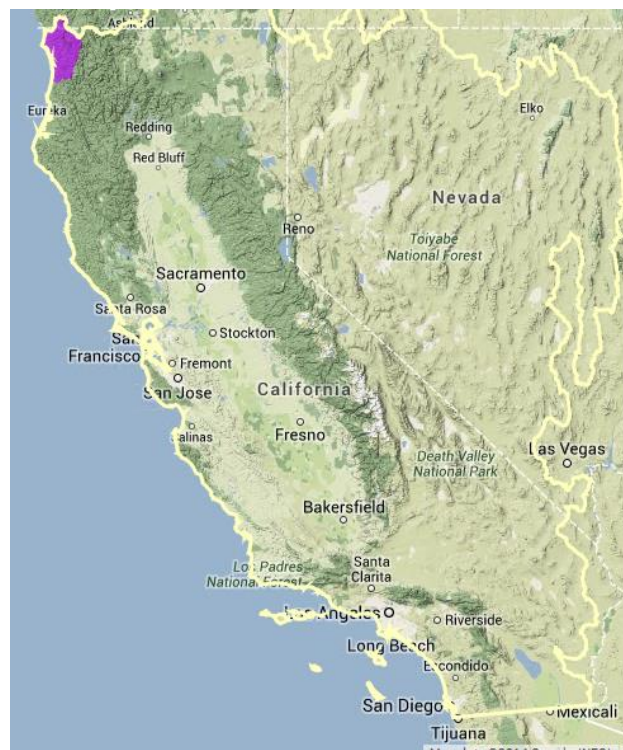


Days 1-5 Precipitation Forecast

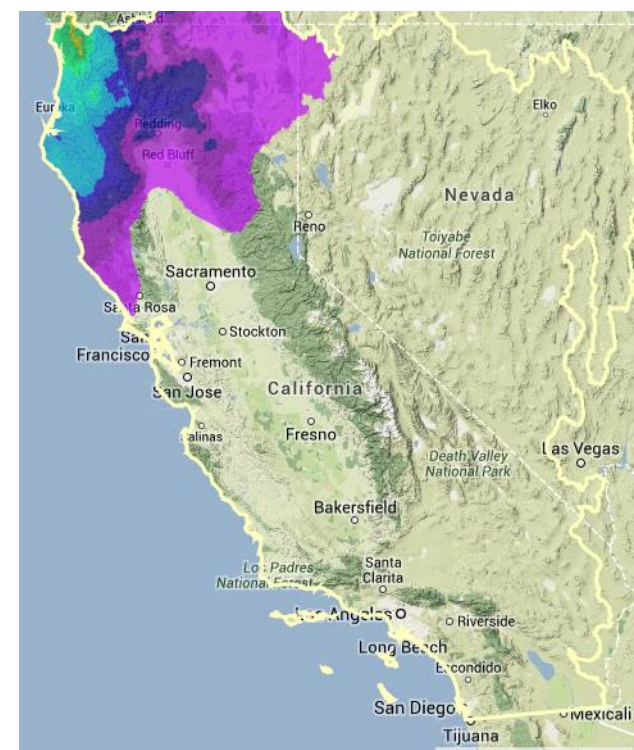
Precipitation (inches)



Thursday and Friday



Saturday into Sunday



Sunday into Monday



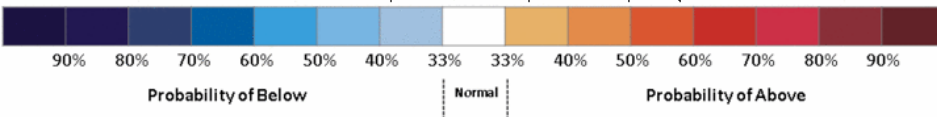
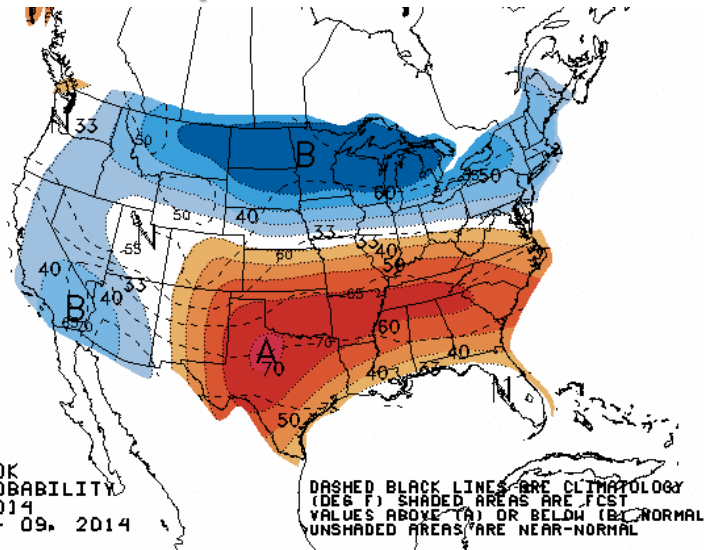
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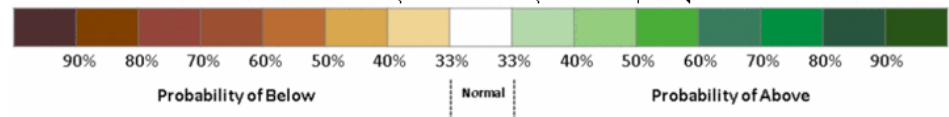
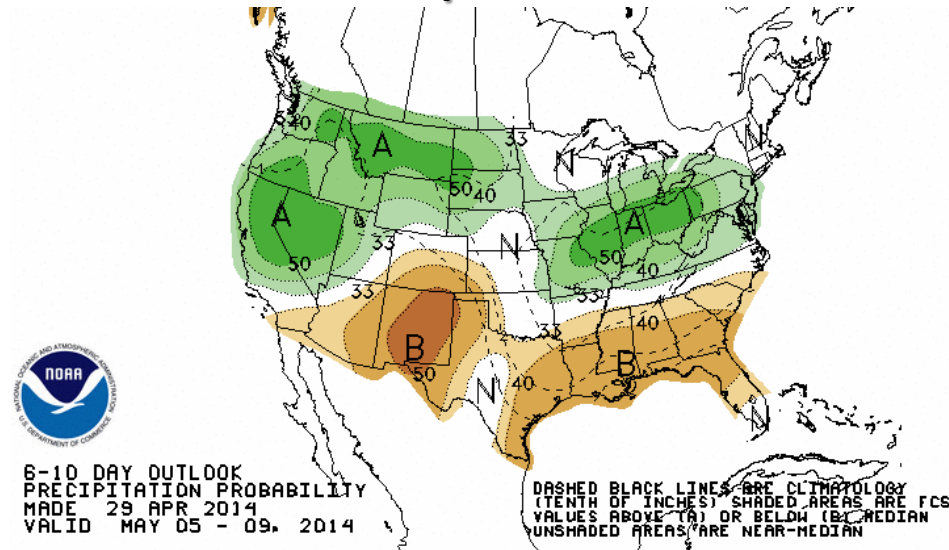
6-10 Day Outlook

May 5-9, 2014

Temperature



Precipitation



Below normal temperatures favored across much of CA. Above normal precipitation favored across the northern 2/3 of the state with below normal precipitation favored extreme southern CA.

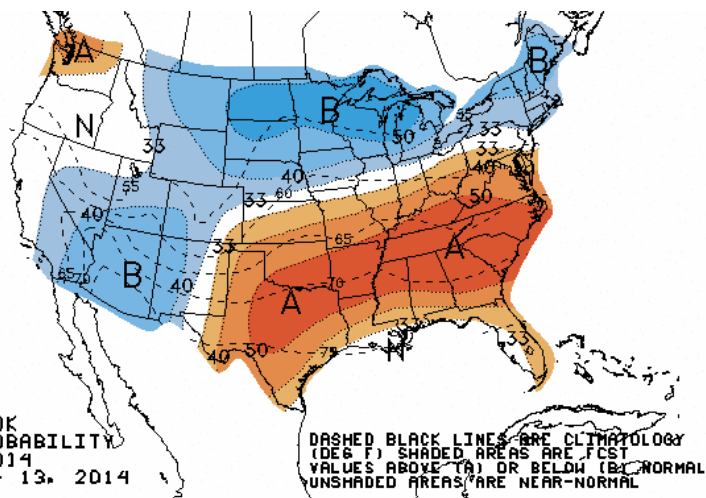
Note: State-wide normal precipitation this time of year is less than ½ inch for this 5 day period.



8-14 Day Outlook

May 7 – 13, 2014

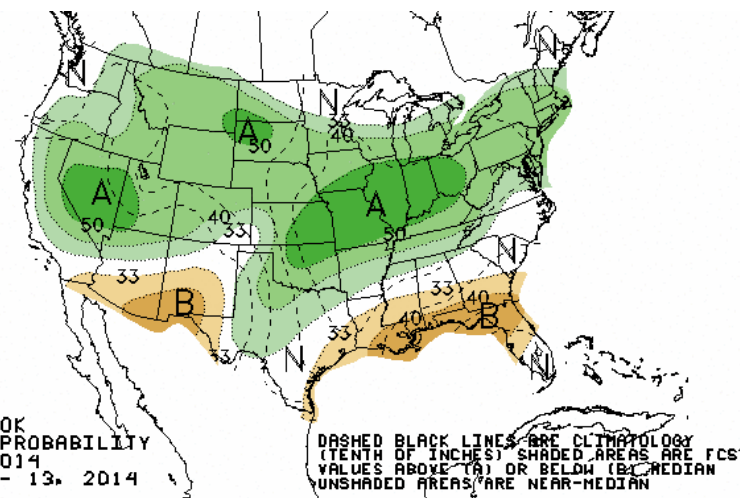
Temperature



90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%

Probability of Below Normal Probability of Above

Precipitation



90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%

Probability of Below Normal Probability of Above

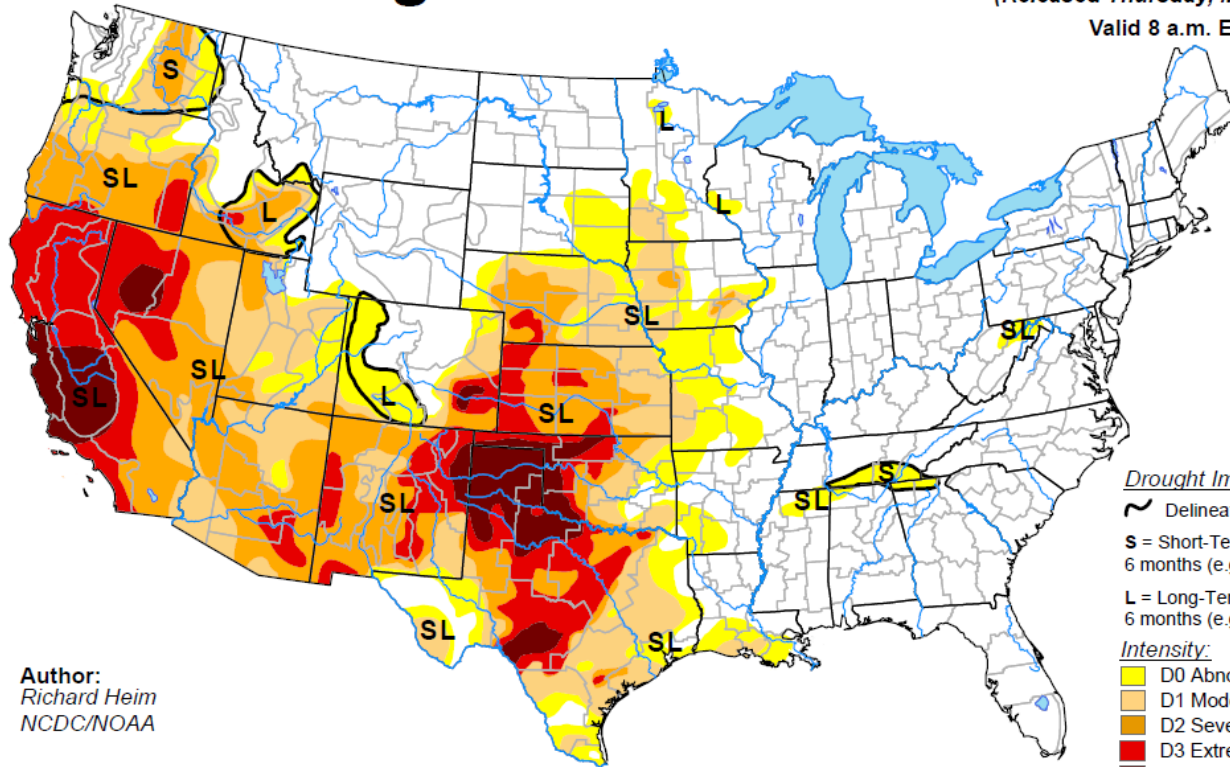
Below normal temperatures are favored across the southern 1/2 of CA. Above normal precipitation is favored across much of the state.

Note: State-wide normal precipitation this time of year is less than 1/2 inch for this 5 day period



U.S. Drought Monitor

April 29, 2014
(Released Thursday, May 1, 2014)
Valid 8 a.m. EDT



Author:
Richard Heim
NCDC/NOAA

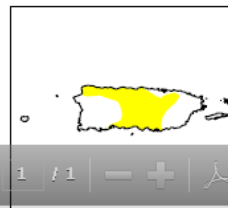
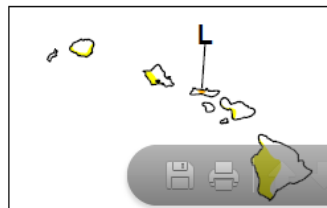
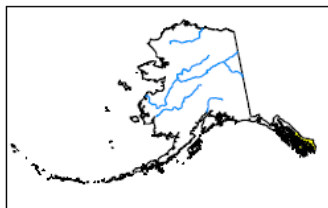
Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

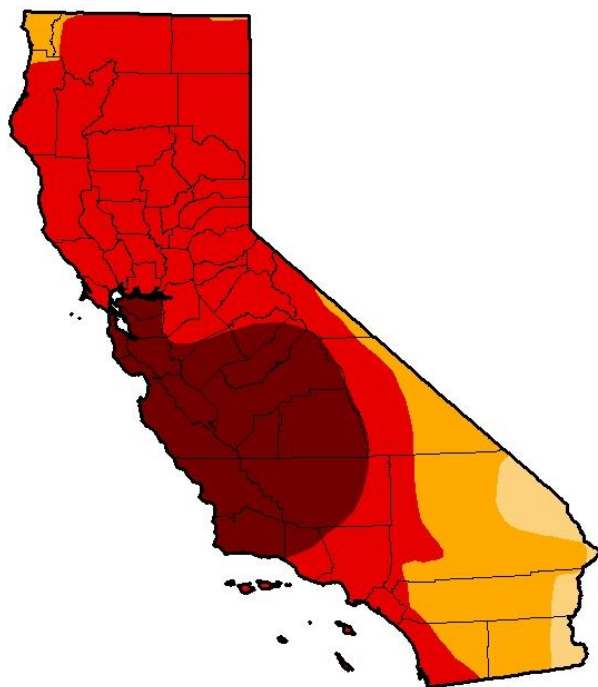
<http://droughtmonitor.unl.edu/>



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Weather Summary - Current Drought Conditions in California

U.S. Drought Monitor California



April 29, 2014

(Released Thursday, May. 1, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	96.01	76.68	24.77
Last Week 4/22/2014	0.00	100.00	100.00	96.01	76.68	24.77
3 Months Ago 1/28/2014	1.43	98.57	94.18	89.91	67.13	8.77
Start of Calendar Year 1/2/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 4/30/2013	0.00	100.00	64.30	32.82	0.00	0.00

Intensity

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Richard Heim
NCDC/NOAA



<http://droughtmonitor.unl.edu/>

The D4 (Exceptional Drought) is the worst drought category on the Drought Monitor and **the first time it's been used in California since this monitoring system started in 2000.** The degradation was made due to historically low rainfall amounts so far this winter, long-term precipitation deficits stretching several years, and a growing number of increasingly significant drought impacts. **In addition, 76% of California is now covered by D3/D4 conditions.**

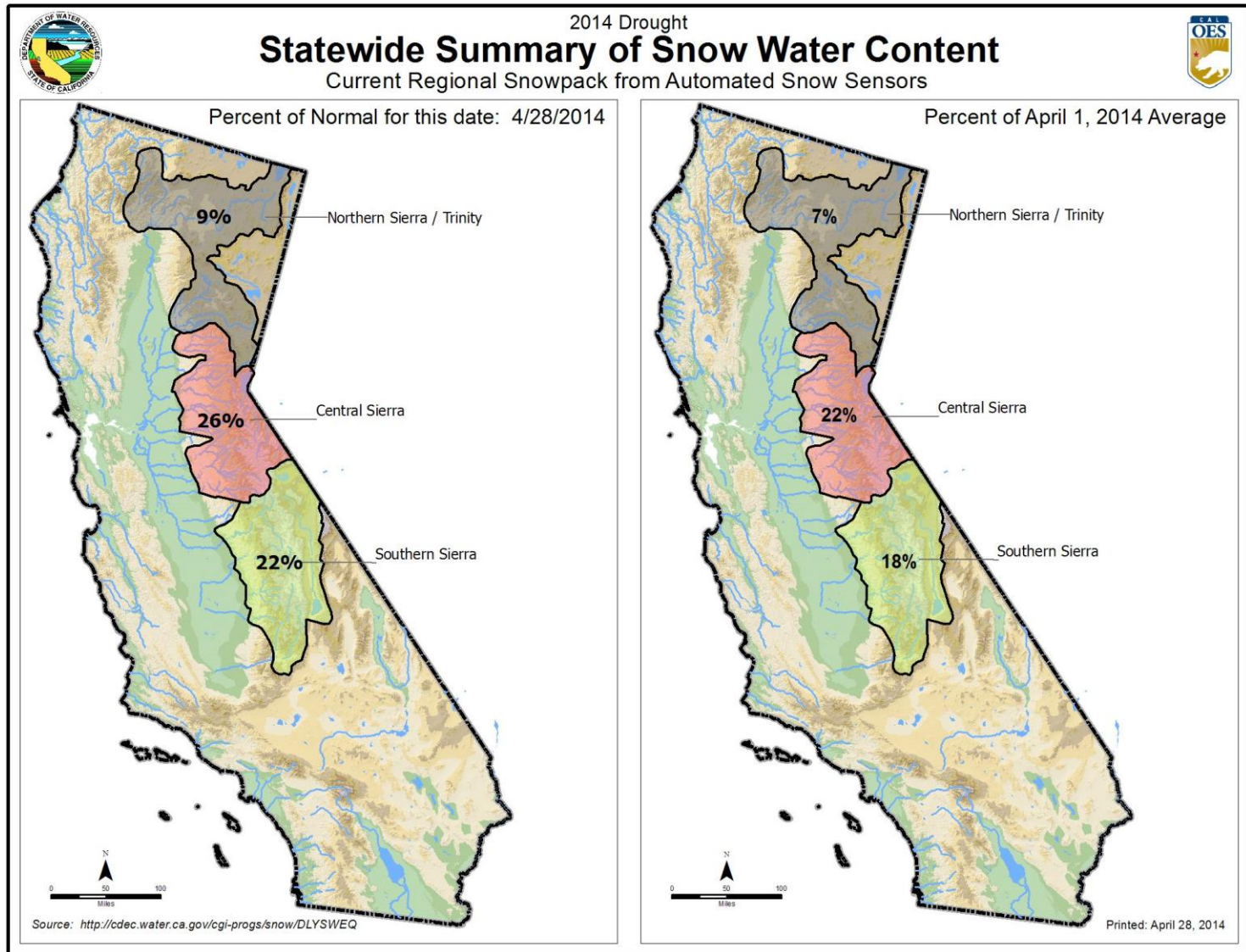
Note: Updated Weekly

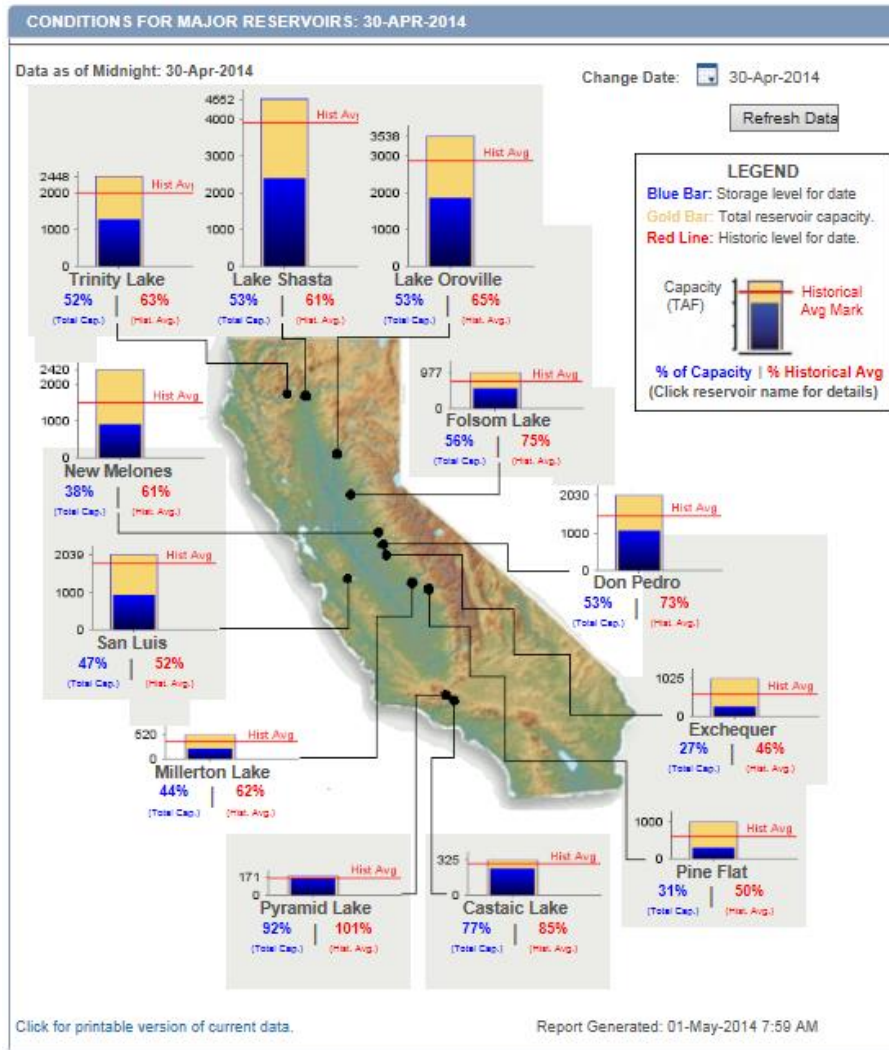
<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?CA>

<http://www.wrh.noaa.gov/sto/droughtca.php>



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Reservoir Levels

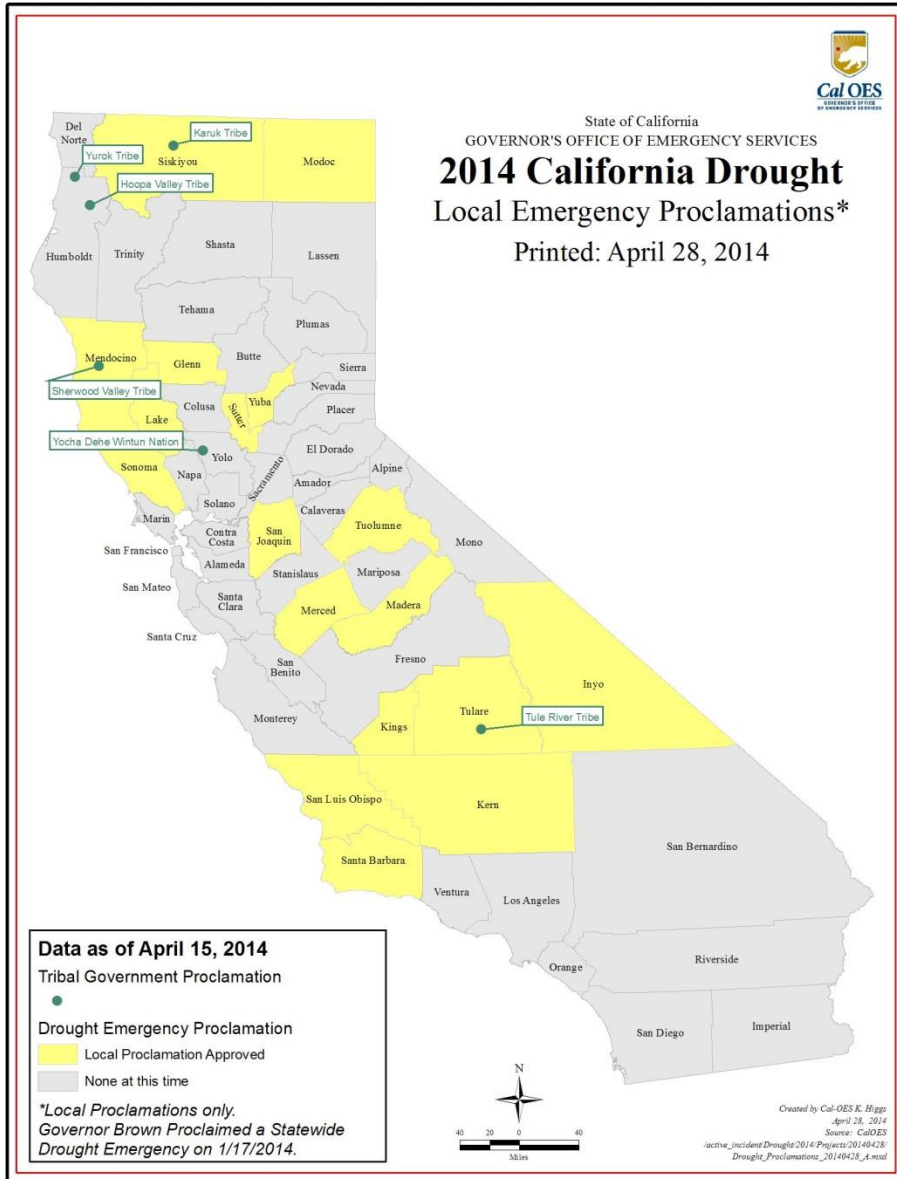
Many parts of California -- including Sacramento and Los Angeles -- marked calendar year 2013 as the driest on record. These extremely dry conditions follow two previous dry years statewide.

Storage in the reservoirs that typically help California cope with dry weather are well below average for this time of year.

River levels are low around the state. Along the North Coast, the Russian River, and the upper Sacramento River, levels are at their lowest points ever for this time of year.

Some water districts with a diversified portfolio of water sources and ample storage -- such as the Metropolitan Water District of Southern California, which serves 19 million people -- are prepared to weather a third dry winter.

Farmers who depend heavily on the State's two biggest water projects, the Central Valley Project and State Water Project, face minimal and uncertain supplies.



Proclamations

State

1/17/14 Governor Edmund G. Brown proclaimed a State of Emergency

Counties

Glenn (1/22/14)
Inyo (1/29/14)
Kern (1/14/14)
Kings (1/14/14)
Lake (1/17/14)
Madera (1/17/14)
Mendocino (1/7/14)
Merced (2/25/14)
Modoc (3/4/14)
San Joaquin (2/25/14)
San Luis Obispo (3/11/14)
Santa Barbara (1/17/14)
Siskiyou (3/11/2014)
Sonoma (2/25/14)
Sutter (2/11/14)
Tulare (2/4/14)
Tuolumne (2/4/14)
Yuba (2/18/14)

Tribal

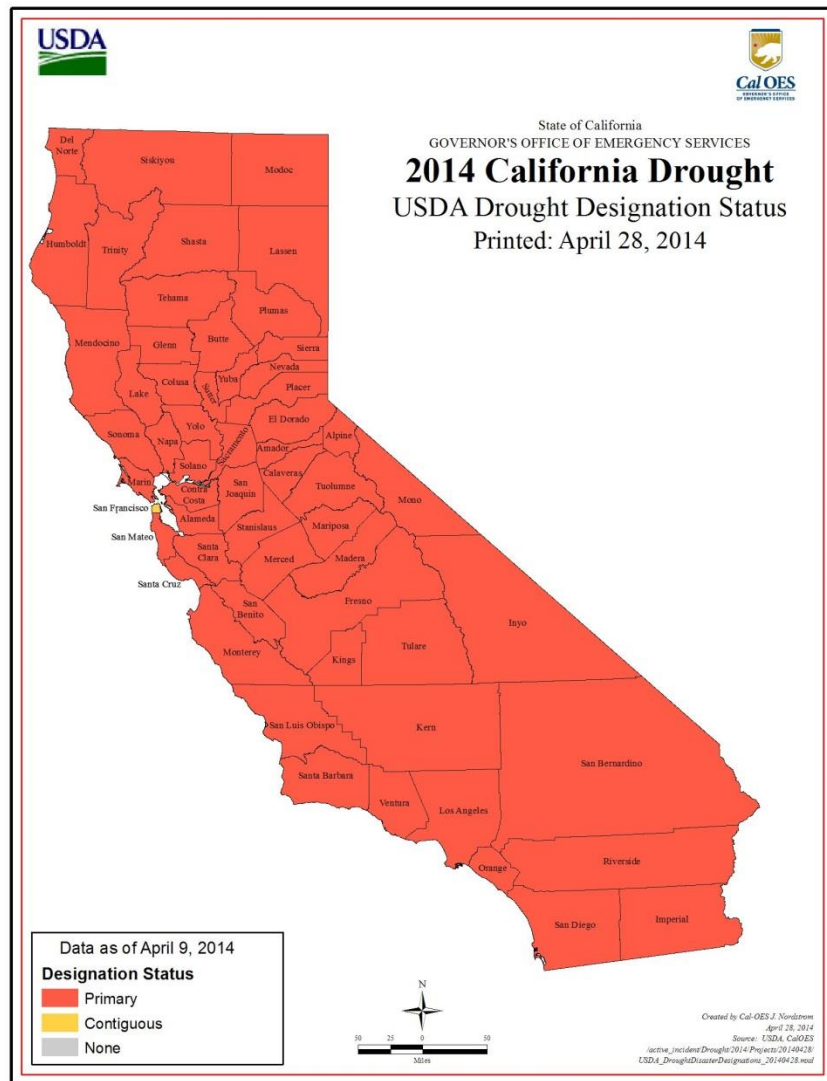
Hoop Valley Reservation (1/20/14)
Sherwood Valley Pomo Indian Tribe (2/19/14)
Yurok Reservation (1/29/14)
Tule River Indian Tribe (1/30/14)
Karuk Tribe (2/18/14)
Yocha Dehe Wintun (3/25/2014)

Federal

None



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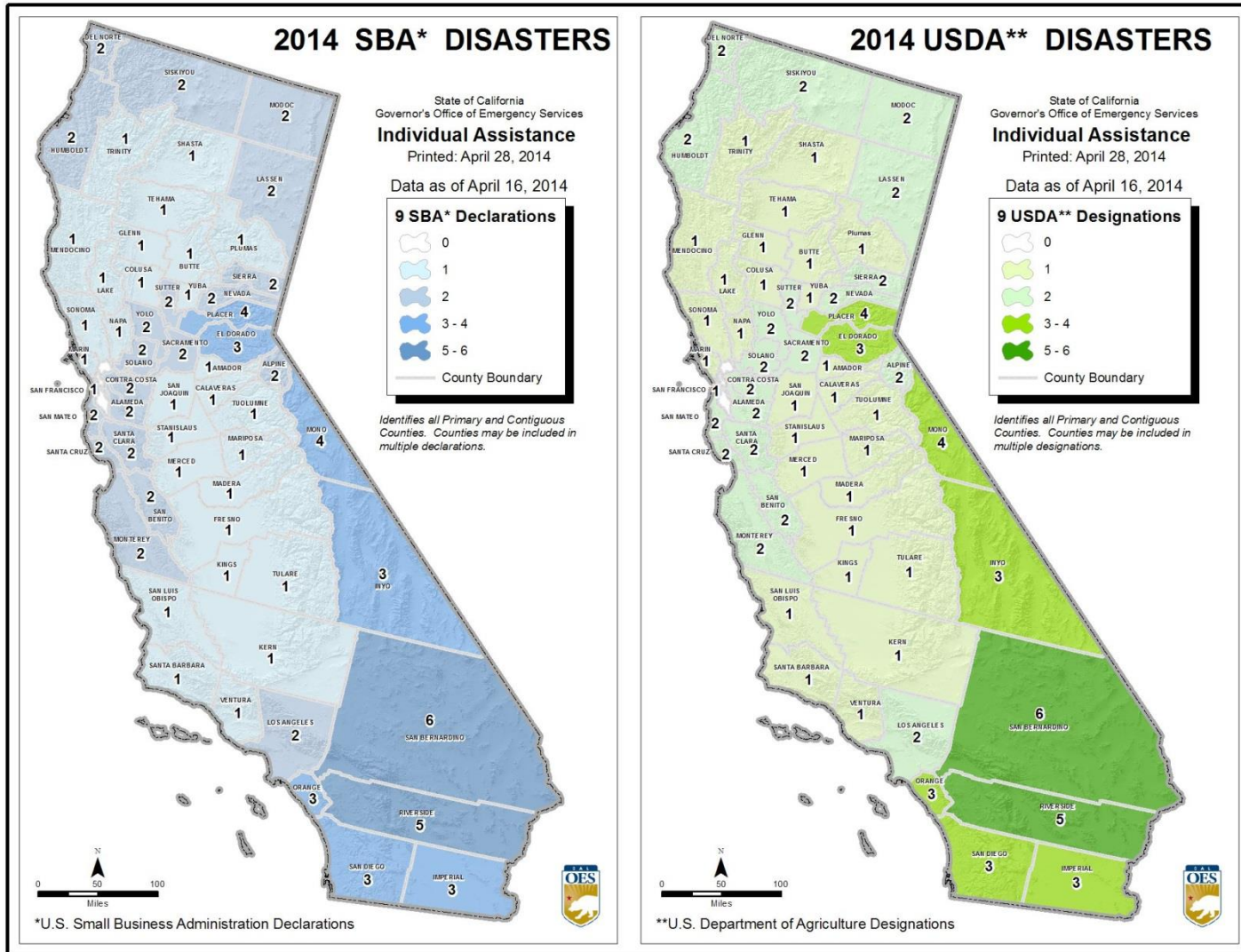


USDA Disaster Designation

The United States Department of Agriculture (USDA) issued a secretarial disaster designation identifying 57 of 58 counties in California as primary natural disaster areas due to drought and 1 contiguous county (San Francisco). This means that every county in California is eligible to receive assistance.

USDA Disaster Designation – Individual Assistance

Information as of 4/16/14



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